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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,213

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Osamu Fujii

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EXAMINER

CHARLES, MARCUS

ART UNIT

PAPER NUMBER

3682

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/501,213	<b>Applicant(s)</b> FUJII ET AL.	
	<b>Examiner</b> Marcus Charles	<b>Art Unit</b> 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-13 and 17-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 and 17-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This action is responsive to the submission filed 5-22-2008, which has been entered.

Claims 9-13 and 17-27 are currently pending.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9, 20, 23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Figs. 36-37) (AAPA) in view of JP (2001-50264). AAPA clearly disclosed the claimed invention, for example the rolling element (60) in the groove of the inner and outer raceways (40/30), the raceway grooves (50/61; 50, 41) are in contact with the outside diameter rolling elements (60), which are arranged cross-wise so that the central axes of rotation of the rolling elements are skewed alternately, and it is apparent that due to the size of the entrance space between the raceways (40/30) it is apparent that the rolling element during assembly is inserted through the opening and into the grooves of the raceway to be rotatable in the grooves of the raceways. However, AAPA (fig. 36) discloses the inner ring (40) is monolithically formed but does not disclose that outer of bearing rings (30) is monolithically formed. JP (2001-50264) discloses a bearing having a pair of bearing rings comprising an outer race (1) and an inner race (2) each having a pair of raceway grooves and are monolithically formed. Therefore, it would have been obvious to one of

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ordinary skill in the art at the time of the invention to modify the outer race of AAPA so that it is monolithically formed in view of JP (2001-50264) in order to reduce manufacturing cost including weight, prevent inadvertent separation or loosening due to high load fluctuation and high rotational speed.

In claim 26, it is apparent that the rolling bearing of Applicant Admitted Prior Art (Figs. 36-37) is assembled in a state that the rolling elements is inserted and rotated by using the groove provided in the part pf the groove and a preload applied. It should be noted axial thickness of the rolling element id smaller than the bearing gap between the raceway face of the pair of rings when assembled allowing the rollers (60) to be inserted and rotated.

3. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Figs. 36-37) (AAPA) in view of JP (2001-50264). as applied to claim 9 above, and further in view of Ashton (2,628,137). Applicant Admitted Prior Art (Figs. 36-37) discloses the claimed invention, except for a retainer having inclined axial pocket faces that are inclined alternately towards opposite sides in the axial direction with a face opposed to the axial pocket being opened. Ashton discloses a bearing having a retainer (9) with axial pocket faces that are inclined alternately toward mutually opposite sides in the axial direction and having an open opposed face.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device if Applicant Admitted Prior Art so as to include the retainer in view of Ashton in order to prevent the rolling bearing from slipping of and to increase the life span of the bearing.

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4. Claims 13, 21 & 24-25 and 27, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Figs. 36-37) (AAPA) in view of JP (2001-50264) and of WO (90/13167). Applicant Admitted Prior Art (Figs. 36-37) in view of JP (2001-50264) discloses the claimed invention above in paragraph, except for the motor as claimed. WO (90/13167) discloses a drive motor comprising a rotor (46), a stator (16) disposed in the motor and a pair of bearing rings (28, 30). Therefore, it would be obvious to one of ordinary skill in the art time of the invention to use the bearing of Applicant Admitted Prior Art (Figs. 36-37) on the motor of WO (90/13167) in order to reduce friction and increase the efficiency of the motor.

In claim 27, it is apparent that the rolling bearing of Applicant Admitted Prior Art (Figs. 36-37) is assembled in a state that the rolling elements are inserted and rotated by using the groove provided in the part of the groove and a preload applied. It should be noted axial thickness of the rolling element is smaller than the bearing gap between the raceway face of the pair of rings when assembled allowing the rollers (60) to be inserted and rotated.

5. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Figs. 36-37) in view of JP (2001-50264) and WO (90/13167) as applied to claim 13 and further in view of Ashton. Applicant Admitted Prior Art (Figs. 36-37) discloses the claimed invention except for a retainer having inclined axial pocket faces that are inclined alternately towards opposite sides in the axial direction. Ashton discloses a bearing having a retainer (9) with axial pocket faces that are inclined alternately toward mutually opposite sides in the axial direction.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the device if Applicant Admitted Prior Art (Figs. 36-37) so as to include a retainer in view of Ashton in order to prevent the rolling bearing from slipping of and to increase the life span of the bearing.

***Response to Arguments***

6. Applicant's arguments with respect to claims 9-13, 17-25 have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

*Marcus Charles*  
/Marcus Charles/  
Primary Examiner  
Art Unit 3682